```
CTCGTGCCGAATTCGGCACGAGACCGCGTGTTCGCGCCTGGTAGAGATTTCTCGAAGACA
CCAGTGGGCCCGTGTGGAACCAAACCTGCGCGCGTGGCCGGGCCGTGGGACAACGAGGCC
GCGGAGACGAAGGCGCAATGGCGAGGAAGTTATCTGTAATCTTGATCCTGACCTTTGCCC
TCTCTGTCACAAATCCCCTTCATGAACTAAAAGCAGCTGCTTTCCCCCAGACCACTGAGA
AAATTAGTCCGAATTGGGAATCTGGCATTAATGTTGACTTGGCAATTTCCACACGGCAAT
ATCATCTACAACAGCTTTTCTACCGCTATGGAGAAAATAATTCTTTGTCAGTTGAAGGGT
TCAGAAAATTACTTCAAAATATAGGCATAGATAAGATTAAAAGAATCCATATACACCATG
ACCACGACCATCACTCAGACCACGAGCACTCACTCAGACCATGAGCGTCACTCAGACCATG
AGCATCACTCAGACCACGAGCATCACTCTGACCATGATCATCACTCTCACCATAATCATG
CTGCTTCTGGTAAAAATAAGCGAAAAGCTCTTTGCCCAGACCATGACTCAGATAGTTCAG
GTAAAGATCCTAGAAACAGCCAGGGGAAAGGAGCTCACCGACCAGAACATGCCAGTGGTA
GAAGGAATGTCAAGGACAGTGTTAGTGCTAGTGAAGTGACCTCAACTGTGTACAACACTG
TCTCTGAAGGAACTCACTTTCTAGAGACAATAGAGACTCCAAGACCTGGAAAACTCTTCC
CCAAAGATGTAAGCAGCTCCACTCCACCCAGTGTCACATCAAAGAGCCGGGTGAGCCGGC
TGGCTGGTAGGAAAACAAATGAATCTGTGAGTGAGCCCCGAAAAGGCTTTATGTATTCCA
GAAACACAAATGAAAATCCTCAGGAGTGTTTCAATGCATCAAAGCTACTGACATCTCATG
GCATGGGCATCCAGGTTCCGCTGAATGCAACAGAGTTCAACTATCTCTGTCCAGGCCATCA
TCAACCAAATTGATGCTAGATCTTGTCTGATTCATCAAGTGAAAAGAAGGCTGAAATCC
CTCCAAAGACCTATTCATTACAAATAGCCTGGGTTGGTTTTATAGCCATTTCCATCA
TCAGTTTCCTGTCTCTGCTGGGGGTTTATCTTAGTGCCTCTCATGAATCGGGTGTTTTTCA
AATTTCTCCTGAGTTTCCTTGTGGCACTGGCCGTTGGGACTTTGAGTGGTGATGCTTTTT
TACACCTTCTTCCCACATTCTCATGCAAGTCACCACCATAGTCATAGCCATGAAGAACCAG
CAATGGAAATGAAAAGAGGACCACTTTTCAGTCATCTGTCTTCTCAAAACATAGAAGAAA
GTGCCTATTTTGATTCCACGTGGAAGGGTCTAACAGCTCTAGGAGGCCTGTATTTCATGT
TTCTTGTTGAACATGTCCTCACATTGATCAAACAATTTAAAGATAAGAAGAAAAAGAATC
AGAAGAAACCTGAAAATGATGATGATGTGGAGATTAAGAAAGCAGTTGTCCAAGTATGAAT
CTCAACTTTCAACAAATGAGGAGAAAGTAGATACAGATGATCGAACTGAAGGCTATTTAC
GAGCAGACTCACAAGAGCCCTCCCACTTTGATTCTCAGCAGCCTGCAGTCTTGGAAGAAG
AAGAGGTCATGATAGCTCATGCTCATCCACAGGAAGTCTACAATGAATATGTACCCAGAG
GGTGCAAGAATAAATGCCATTCACATTTCCACGATACACTCGGCCAGTCAGACGATCTCA
TTCACCACCATCATGACTACCATCATATTCTCCATCATCACCACCACCAAAACCACCATC
CTCACAGTCACAGCCAGCGCTACTCTCGGGAGGGAGCTGAAAGATGCCGGCGTCGCCACTT
TGGCCTGGATGGTGATAATGGGTGATGGCCTGCACAATTTCAGCGATGGCCTAGCAATTG
GTGCTGCTTTTACTGAAGGCTTATCAAGTGGTTTAAGTACTTCTGTTGCTGTGTTCTGTC
ATGAGTTGCCTCATGAATTAGGTGACTTTGCTGTTCTACTAAAGGCTGGCATGACCGTTA
AGCAGGCTGTCCTTTATAAATGCATTGTCAGCCATGCTGGCGTATCTTGGAATGGCAACAG
GAATTTTCATTGGTCATTATGCTGAAAATGTTTCTATGTGGATATTTGCACTTACTGCTG
GCTTATTCATGTATGTTGCTCTCTGGTTTGATATGGTACCTGAAATGCTCACAATGATGCTA
GTGACCATGGATGTAGCCGCTGGGGGTATTTCTTTTTTACAGAATGCTGGGATGCTTTTGG
GTTTTGGAATTATGTTACTTATTTTCCATATATTTGAACATAAAATCGTGTTTCGTATAAATT
TCTAGTTAAGGTTTAAATGCTAGAGTAGCTTAAAAAGTTGTCATAGTTTCAGTAGGTCAT
AGGGAGATGAGTTTGTATGCTGTACTATGCAGCGTTTAAAGTTAGTGGGTTTTGTGATTT
TTGTATTGAATATTGCTGTTGTTACAAAGTCAGTTAAAGGTACGTTTTAATATTTAAGT
TATTCTATCTTGGAGATAAAATCTGTATGTGCAATTCACCGGTATTACCAGTTTATTATG
TTTTCAAGAACTAACACAGTTATTTCCTATACTGGATTTTAGGTCTCTGAAGAACTGCTGG
TGTTTAGGAATAAGAATGTGCATGAAGCCTAAAATACCAAGAAAGCTTATACTGAATTTA
AGCAAAGAAAATAAAGGAGAAAAGAGAAGAATCTGAGAATTGGGGAGGCATAGATTCTTAT
AAAAATCACAAAATTTGTTGTAAATTAGAGGGGAGAAATTTAGAATTAAGTATAAAAAGG
CAGAATTAGTATAGAGTACATTCATTAAACATTTTTGTCAGGATTATTTCCCGTAAAAAC
GTAGTGAGCACTCTCATATACTAATTAGTGTACATTTAACTTTGTATAATACAGAAATCT
AAATATATTTAATGAATTCAAGCAATATACACTTGACCAAGAAATTGGAATTTCAAAATG
TTCGTGCGGGTTATATACCAGATGAGTACAGTGAGTAGTTTATGTATCACCAGACTGGGT
TATTGCCAAGTTATATATCACCAAAAGCTGTATGACTGGATGTTCTGGTTACCTGGTTTA
CAAAATTATCAGAGTAGTAAAACTTTGATATATATGAGGATATTAAAACTACACTAAGTA
TCATTTGATTCGATTCGAAAGTACTTTGATAATCTCTCAGTGCTTCAGTGCTATCATTGT
GAGCAATTGTCTTTATATACGGTACTGTAGCCATACTAGGCCGTGTCTGTGGCATTCTCTA
GATGTTTCTTTTTTACACAATAAATTCCTTATATCAGCTTG
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FIG. 1

ATGGCGAGGAAGTTATCTGTAATCTTGATCCTGACCTTTGCCCTCTCTGTCACAAATCCC
CTTCATGAACTAAAAGCAGCTGCTTTCCCCCAGACCACTGAGAAAATTAGTCCGAATTGG
GAATCTGGCATTAATGTTGACTTGGCAATTTCCACACGGCAATATCATCTACAACAGCTT
TTCTACCGGCTATGGAGAAAATAATTCTTTGTCAGTTGAAGGGTTCAGAAAATTACTTCAA
AATATAGGCATAGATAAGATTAAAAGAATCCATATACACCATGACCACGACCATCACTCA
GACCACGGAGCATCACTCAGACCATGAGCGTCACTCAGACCATGAGCATCACTCAGACCAC
GAGCATCACTCTGACCAT<u>GATCATCACTCTCACCAT</u>AATCATGCTGCTTTCTGGTAAAAAT
AAGCGAAAAGCTCTTTGCCCAGACCATGACTCAGATAGTTCAGGTAAAGATCCTAGAAAC
AGCCAGGGGAAAGGAGCTCACCGACCAGAACATGCCAGTGGTAGAAGGGAATGTCAAGGAC
AGTGTTAGTGCTAGTGAAGTGACCTCAACTGTGTACAACACTGTCTCTGAAGGAACTCAC
TTTCTAGAGACAATAGAGACTCCAAGACCTGGAAAACTCTTCCCCAAAGATGTAAGCAGC
TCCACTCCACCCAGTGTCACATCAAAGAGCCGGGTGAGCCGGCTGGCTGGTAGGAAAACA
AATGAATCTGTGAGTGAGCCCCGAAAAGGCTTTATGTATTCCAGAAACACAAATGAAAAT
CCTCAGGAGTGTTTCAATGCATCAAAGCTACTGACATCTCATGGCATGGGCATCCAGGTT
CCGCTGAACACAGAGTTCAACTATCTCTGTCCAGCCATCATCAACCAAATTGATGCT
AGATCTTGTCTGATTCATACAAGTGAAAAGAAGGCTGAAATCCCTCCAAAGACCTATTCA
TTACAAATAGCCTGGGTTGGTGGTTTTATAGCCATTTCCATCATCAGTTTCCTGTCTCTG
CTGGGGGTTATCTTAGTGCCTCTCATGAATCGGGTGTTTTTCAAATTTCTCCTGAGTTTC
CTTGTGGCACTGGCCGTTGGGACTTTGAGTGGTGATGCTTTTTTACACCTTCTTCCACAT
TCTCATGCAAGTCACCACCACAGTCATAGCCATGAAGAACCAGCAATGGAAATGAAAAGA
GGACCACTTTTCAGTCATCTGTCTTCTCAAAACATAGAAGAAAGTGCCTATTTTGATTCC
ACGTGGAAGGGTCTAACAGCTCTAGGAGGCCTGTATTTCATGTTTCTTGTTGAACATGTC
CTCACATTGATCAAACAATTTAAAGATAAGAAGAAAAAGAATCAGAAGAAACCTGAAAAT
GATGATGATGTGGAGATTAAGAAGCAGTTGTCCAAGTATGAATCTCAACTTTCAACAAAT
GAGGAGAAAGTAGATACAGATGATCGAACTGAAGGCTATTTACGAGCAGACTCACAAGAG
CCCTCCGCCACTTTGATTCTCAGCAGCCTGCAGTCTTGGAAGAAGAAGAGGTCATGATAGCT
CATGCTCATCCACAGGAAGTCTACAATGAATATGTACCCAGAGGGTGCAAGAATAAATGC
CATTCACATTTCCACGATACACTCGGCCAGTCAGACGACTCATTCACCACCATCATGAC
TACCATCATATTCTCCATCATCATCACCACCACCAAAACCACCATCCTCACAGTCACAGCCAG
CGCTACTCTCGGGAGGAGCTGAAAGATGCCGGCGTCGCCACTTTGGCCTGGATGGTGATA
ATGGGTGATGGCCTGCACAATTTCAGCGATGGCCTAGCAATTGGTGCTGGCTTTTACTGAA
GGCTTATCAAGTGGTTTAAGTACTTCTGTTGCTGTGTTCTGTCATGAGTTGCCTCATGAA
AATGCATTTGCAGCCATGCTGGCGTATCTTGGAATGGCAACAGGAATTTTCATTGGTCAT
TATGCTGAAAATGTTTCTATGTGGATATTTGCACTTACTGCTGGCTTATTCATGTATGTT
GCTCTGGTTGATATGGTACCTGAAATGCTGCACAATGATGCTAGCGACAACGGATGATGTAGC
CGCT<u>GGGGGTATTTCTTTTTACAGAATGCTG</u>GGATGCTTTTGGGTTTTGGAATTATGTTA
CTTA|TTTCCATATTTGAACATAAAATCGTGT|TTCGTATAAATTTCTAG

FIG.2

MARKLSVILILTFALSVTNPLHELKAAAFPQTTEKISPNWESGINVDLAISTRQYHLQQL
FYRYGENNSLSVEGFRKLLQNIGIDKIKRIHIHHDHDHHSDHEHHSDHERHSDHEHHSDH
SVSASEVTSTVVNTVSEGTHFLETIETPRPGKLFPKDVSSSTPPSVTSKSRVSRLAGRKT
NESVSEPRKGFHMYSRNTNENPQECFNASKLLTSHGMGIQVPLNATEFNYLCPAIINQIDA
RSCLIHTSEKKAEIPPKTYSLQIAWVGGFIAISIISFLSLLGVILVPLMNRVFFKFLLSF
LVALAVGTLSGDAFLHLLPHSHASHHHSHSHEEPAMEMKRGPLFSHLSSQNIEESAYFDS
TWKGLTALGGLYFMFLVEHVLTLIKQFKDKKKKNQKKPENDDDVEIKKQLSKYESQLSTN
EEKVDTDDRTEGYLRADSQEPSHFDSQQPAVLEEEEVMIAHAHPQEVYNEYVPRGCKNKC
HSHFHDTLGQSDDLIHHHHDYHHILHHHHHQNHHPHSHSQRYSREELKDAGVATLAWMVI
MGDGLHNFSDGLAIGAAFTEGLSSGLSTSVAVFCHELPHELGDFAVLLKAGTVKQAVLYN
ALSAMLAYLGMATGIFIGHYAENVSMWIFALTAGIFMYVALVDMVPEMLHNDASDNGCSR
WGYFFLQNAGMLLGFGIMLLTSIFEHKIVFRINFL

FIG.3